Amendments to the Claims:

1. (Currently Amended) A pharmaceutical composition comprising

a pharmaceutically acceptable excipient, and

core-shell particles, said core-shell particles comprising a core component and a shell component, the core component comprising a potassium-binding cation exchange polymer, the shell component comprising a crosslinked synthetic polymer, the synthetic polymer being produced by free radical polymerization of an ethylenic monomer ~~monomers and having a permeability for potassium ion that is higher than the permeability for a competing cation, said core-shell particles binding potassium ion in a gastrointestinal tract of an animal subject suffering from renal insufficiency or renal failure, and retaining bound potassium ion during residence and passage of the core-shell particles in through the gastrointestinal tract of the animal subject suffering from renal insufficiency or renal failure, such that potassium ion is removed from the gastrointestinal tract of the animal by the core-shell particles to obtain a therapeutic and/or prophylactic benefit~~.

2-9. (Canceled)

10. (Previously Presented) The pharmaceutical composition of claim 1 wherein said shell component polymer is capable of modulating movement of said competing cation into or out of said core-shell particle.

11-15. (Canceled)

16. (Currently Amended) The pharmaceutical composition of claim 66 [[1]] wherein said permeability of said shell component polymer to potassium ion is independent of said permeability of said shell component polymer to said competing cation.

17. (Previously Presented) The pharmaceutical composition of claim 1 wherein said core component is physically or chemically attached to said shell component.

18-19. (Canceled)

20. (Currently Amended) The pharmaceutical composition of claim 66 [[1]] wherein said shell component polymer exhibits a greater interaction with said competing cation compared to said potassium ion.

21. (Currently Amended) The pharmaceutical composition of claim 66 [[1]] wherein said shell component polymer repels said competing cation by ionic interaction.

22. (Previously Presented) The invention of claim 1 or 45 wherein said shell component is about 1 nm to about 50 μm thick.

23. (Previously Presented) The invention of claim 1 or 45 wherein said core-shell particle is about 200 nm to about 2 mm in size.

24. (Previously Presented) The invention of claim 1 or 45 wherein said shell component is about 0.005 microns to about 20 microns thick.

25-30. (Canceled)

31. (Previously Presented) The pharmaceutical composition of claim 1 wherein said shell component is deposited with a coating process.

32. (Previously Presented) The pharmaceutical composition of claim 1 further comprising an enteric coating.

33-44. (Canceled)

45. (Previously Presented) A method of removing potassium ion from a gastrointestinal tract of an animal subject suffering from renal insufficiency or renal failure, the method comprising:

administering to the animal subject suffering from renal insufficiency or renal failure a composition comprising core-shell particles, the core-shell particles comprising a core component and a shell component, the core component comprising a potassium-binding cation exchange polymer, the shell component comprising a polymer having a permeability for potassium ion that is higher than a permeability for a competing cation,

binding potassium ion with the core-shell particles in the gastrointestinal tract of the animal subject, and

retaining bound potassium ion with the core-shell particles during residence and passage of the core-shell particles through the gastro-intestinal tract of the animal subject suffering from renal insufficiency or renal failure, such that potassium ion is removed from the gastrointestinal tract of the animal subject by the core-shell particles to obtain a therapeutic and/or prophylactic benefit.

46. (Previously Presented) The invention of claim 1 or 45 wherein the core component comprises a crosslinked cation-exchange polymer.

47. (Previously Presented) The invention of claim 1 or 45 wherein the core component comprises a cation-exchange polymer comprising acidic functional groups.

48. (Previously Presented) The invention of claim 1 or 45 wherein the core component comprises a cation-exchange polymer comprising functional groups selected from the group consisting of carboxylate, phosphonate, sulfate, sulfonate, sulfamate and combinations thereof.

49. (Currently Amended) The invention of claim ~~1 or~~ 45 wherein the shell component comprises a crosslinked polymer.

50. (Currently Amended) The invention of claim ~~1 or~~ 45 wherein the shell component comprises a crosslinked synthetic polymer.

51. (Previously Presented) The invention of claim 1 or 45 wherein the shell component comprises a polymer produced by polymerization of an ethylenic monomer selected from the group consisting of acrylic, methacrylic, styrenic, dienic, vinylic and combinations thereof.

52. (Previously Presented) The invention of claim 1 or 45 wherein the shell component comprises a polymer produced by polymerization of a vinylic monomer.

53. (Previously Presented) The invention of claim 1 or 45 wherein the shell component comprises a polymer produced by polymerization of an acrylic or methacrylic monomer.

54. (Previously Presented) The invention of claim 1 or 45 wherein the shell component is essentially not disintegrated during residence and passage of the core-shell particles through the gastro-intestinal tract.

55. (Previously Presented) The invention of claim 1 or 45 wherein the core-shell particles retain at least about 50% of the bound potassium ion with the core-shell particles during residence and passage of the core-shell particles through the gastro-intestinal tract.

56. (Currently Amended) The invention of claim ~~1 or~~ 45 or 67 wherein the core-shell particles retain at least about 75% of the bound potassium ion with the core-shell particles during residence and passage of the core-shell particles through the gastro-intestinal tract.

57. (Currently Amended) The invention of claim ~~1 or~~ 45 or 67 wherein the core-shell particles selectively bind potassium ion over the competing cation during residence and passage of the core-shell particles through the gastro-intestinal tract.

58. (Currently Amended) The invention of claim ~~1 or~~ 45 or 67 wherein the animal subject is a human suffering from end stage renal disease (ESRD).

59. (Currently Amended) The invention of claim ~~1 or~~ 45 or 67 wherein the animal subject is a human dialysis patient.

60. (Currently Amended) The invention of claim ~~1 or~~ 45 or 67 wherein the animal subject is a human suffering from hyperkalemia.

61. (Previously Presented) The invention of claim 1 or 45 wherein the shell component is hydrophobic.

62. (Previously Presented) The invention of claim 1 or 45 wherein the core component comprises a crosslinked cation-exchange polymer comprising acidic functional groups, and the shell component comprises a crosslinked synthetic polymer.

63. (Previously Presented) The invention of claim 62 wherein the shell component is hydrophobic.

64. (Previously Presented) The invention of claim 62 wherein the shell component comprises a polymer produced by polymerization of a vinylic monomer.

65. (Previously Presented) The invention of claim 62 wherein the shell component comprises a polymer produced by polymerization of an acrylic or methacrylic monomer.

66. (New) The pharmaceutical composition of claim 1 wherein said shell component has a permeability for potassium ion that is higher than the permeability for a competing cation.

67. (New) The pharmaceutical composition of claim 66 wherein said core-shell particles bind potassium ion in a gastrointestinal tract of an animal subject suffering from renal insufficiency or renal failure, and retain bound potassium ion during residence and passage of the core-shell particles through the gastrointestinal tract of the animal subject suffering from renal insufficiency or renal failure, such that potassium ion is removed from the gastrointestinal tract of the animal by the core-shell particles to obtain a therapeutic and/or prophylactic benefit.

68. (New) A pharmaceutical composition comprising core-shell particles, said core-shell particles comprising a core component and a shell component, the core component comprising a potassium-binding cation exchange polymer, the shell component comprising a polymer produced by polymerization of an acrylic or methacrylic monomer wherein said shell component is about 0.005 microns to about 20 microns thick and said core-shell particle is about 200 nm to about 2 mm in size.